

FORM PTO-1449

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Sabine Balthasar, et al.

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Examiner :

Group Art Unit:

Title : Carrier System in the Form of Protein-Based Nanoparticles for
the Cell-Specific Enrichment of Pharmaceutically Active
Substances

Attorney File : RO4304US (#90568)

Mail Stop Amendment
Commissioner for Patents
P O Box 1450
Alexandria, Virginia, 22313-1450

U S PATENT DOCUMENTS

Examiner	Document		
Initial	Number	Date	Name

U.S. Published Applications

Examiner	Document		
Initial	Number	Date	Name

Foreign Patent Documents

Examiner	Document			Translation
Initial	Number	Date	Country	(Yes/No)
_____	EP 1598419	11/23/2005	EPO	No
_____	WO 98/56370	12/17/98	WO	No

_____	WO 01/91808	12/6/01	WO	No
_____	WO 04/076658	9/10/04	WO	No

Other Prior Art (Inc. Author, Title, Date, Pertinent Pages, Etc)

Examiner
Initial

Document

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|-------|---|
| _____ | Artemov, et al.; "MR molecular imaging of the Her-2/neu receptor in breast cancer cells using targeted iron oxide nanoparticles;" <i>Magnetic Resonance in Medicine</i> ; Academic Press; Vol. 49, No. 3; March 2003; pp. 403-408 * |
| _____ | Bourel, et al.; "A new immunoreagent for cell labelling CD3 monoclonal antibody covalently coupled to fluorescent polymethacrylic nanoparticles;" <i>Journal of Immunological Methods</i> ; Vol. 106, No. 2 (1988); pp. 161-168 * |
| _____ | Harma, et al.; "Zeptomole detection sensitivity of prostate-specific antigen in a rapid microtitre plate assay using time-resolved fluorescence;" <i>Luminescence</i> ; Vol. 15, No. 6 (2000); pp. 351-355 * |
| _____ | Langer, et al., "Preparation of avidin-labeled protein nanoparticles as carriers for biotinylated peptide nucleic acid;" <i>European Journal of Pharm. & Biopharm</i> ; Vol. 49 (2000); pp. 303-307 |
| _____ | Loiler, S.A., et al., "Targeting Recombinant adeno-associated virus vectors to enhance gene transfer to pancreatic islets and liver;" <i>Gene Therapy</i> ; Sept., 2003; Vol. 10 |
| _____ | Nobs, et al.; "Poly(lactic acid) nanoparticles labelled with biologically active Neutravidin (™) for active targeting;" <i>European Journal of Pharmaceutics and Biopharmaceutics</i> ; Vol. 58, No. 3; Nov. 2004; pp. 483-490 * |
| _____ | Renson, et al., "Recombinant Lipoproteins: Lipoprotein-like lipid particles for drug targeting;" <i>Advanced Drug Delivery Reviews</i> ; (2001); pp. 251-276 |
| _____ | Rolland, et al.; "Monoclonal antibodies covalently coupled to polymethacrylic nanoparticles in-vitro specific targeting to human T lymphocytes;" <i>International Journal of Pharmaceutics</i> ; Vol. 39, No. 1-2 (1987); pp. 173-180 * |
| _____ | Sakahara, S.A., et al., "Avidin-biotin system for delivery of diagnostic agents;" <i>Advanced Drug Delivery Reviews</i> ; Vol. 37 (1999); pp. 89-101 |
| _____ | Wu, et al.; "Immunofluorescent labelling of cancer marker Her2 and other |

cellular targets with semiconductor quantum dots;" *Nature Biotechnology*;
Vol. 21, No., 1; pp. 41-46 *

Examiner

Date Considered:

/Thurman Wheeler/

10/02/2009

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant

* - denotes a copy will follow

*** - It is noted that WO 2004/076658 contains 133 pages and EP 1598419 contains 83. Therefore, only the first page of each reference is provided. The Applicant can provide the full text of either or both documents at the Examiner's request.